

CLAIMS:

1. A composition comprising an essential oil in a gel carrier, said essential oil being obtained from a plant selected from the genera *Salvia*, *Artemisia*, *Citrus*, *Juniperus*, *Laurus*, *Myristica*, *Origanum*, *Piper* or *Aloysia*, said composition being for use in the treatment of a human or animal having a parasitic insect infestation.

10 2. A composition as claimed in claim 1 wherein the concentration of essential oil is from about 0.1 to about 50% w/v of the composition.

15 3. A composition as claimed in claim 2 wherein the concentration of essential oil is from about 0.1 to about 8% w/v of the composition.

20 *Sub A2* 4. A composition as claimed in claim 3 wherein the concentration of essential oil is about 4% w/v of the composition.

25 5. A composition as claimed in any preceding claim wherein the gel is based on agar, agarose, gelatin or a synthetic gelling agent.

30 6. A composition as claimed in claim 5 wherein the synthetic gelling agent is a gel based on glyceryl polymethacrylate and propylene glycol.

35 *Sub A3* 7. A composition as claimed in claim 4 or claim 5 wherein the gel is a carbomer.

40 8. A composition as claimed in any one of claims

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5 to 7 wherein the gelling agent contains about 0.1 to about 95%, preferably about 0.1 to about 66% water v/v and/or alcohol, preferably isopropyl alcohol (IPA) at about 0.1% to about 20% v/v.

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9. A composition as claimed in any preceding claim wherein said essential oil is obtained from Salvia lavandulifolia or Salvia officinalis.

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10. A composition as claimed in any one of claims 1 to 8 wherein said essential oil is obtained from a plant of the genera Citrus.

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11. A composition as claimed in any one of claims 1 to 8 which includes essential oil obtained from the plant genera Salvia and Citrus.

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12. A composition as claimed in claim 9 which comprises the essential oil of Salvia lavandulifolia at about 4% w/v dispersed in a gel diluted about 1:2 v/v with water.

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Sub A4 13. A composition as claimed in any preceding claim comprising an anti-pruritic agent.

14. A composition as claimed in claim 13 wherein said anti-pruritic agent is Aloe vera.

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Sub A5 15. A composition as claimed in claim 14 wherein said composition includes Aloe vera gel.

16. A composition as claimed in claim 15 which comprises about 0.1 to about 5.0% w/v Aloe vera gel.

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17. A composition as claimed in any one of claims 12 to 16 which comprises about 0.5% w/v Aloe vera gel.

5 18. Use of a gel and essential oil selected from the essential oils defined in claim 1 in the manufacture of a composition for the treatment of a human or animal having a parasitic insect infestation.

10 Sub 19. A method of treating a human or animal
19. Sub 16 suffering from a parasitic insect infestation comprising applying to said human or animal a composition as claimed in any one of claims 1 to 17.

15 20. A composition comprising an essential oil in an aqueous alcoholic vehicle wherein said vehicle comprises from about 0.1% up to about 20% alcohol v/v with water and wherein said essential oil is obtained from a plant selected from the genera *Salvia*,
20 *Artemisia*, *Citrus*, *Juniperus*, *Laurus*, *Myristica*, *Origanum*, *Piper* or *Aloysia*, said composition being for use in the treatment of a human or animal having a parasitic insect infestation.

25 21. A composition as claimed in claim 20 wherein said vehicle comprises about 20% v/v alcohol with water.

30 22. A composition comprising an essential oil in a vehicle comprising an alcohol/vegetable oil mixture wherein said alcohol is present in said vehicle in an amount of about 0.1% up to about 20% v/v and wherein said essential oil is obtained from a plant selected from the genera *Salvia*, *Artemisia*, *Citrus*, *Juniperus*,

Laurus, Myristica, Origanum, Piper or Aloysia said composition being for use in the treatment of an animal having a parasitic insect infestation.

5 23. A composition as claimed in claim 22 wherein said vehicle comprises about 20% alcohol v/v.

Sub A7 > 10 24. A composition as claimed in any one of claims 20 to 23 wherein the alcohol is isopropyl alcohol.

15 25. A composition as claimed in any one of claims 20 to 24 wherein said essential oil is obtained from *Salvia lavandulifolia* or *Salvia officinalis*.

20 26. A composition as claimed in any one of claims 20 to 24 wherein said essential oil is obtained from a plant of the genera *Citrus*.

25 27. A composition as claimed in any one of claims 20 to 24 wherein said essential oil is obtained from the genera *Salvia* and *Citrus*.

28. A composition as claimed in any one of claims 20 to 27 which is formulated as a dip, spray or pour-on treatment.

30 29. Use of an aqueous alcoholic vehicle and an essential oil as defined in claim 20 in the manufacture of a composition for the treatment of a human or animal having a parasitic insect infestation.

Sub Q8 > 30. A method of treating a human or animal suffering from a parasitic insect infestation

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comprising applying to said human or animal a composition as claimed in any one of claims 20, 21, 24, 25, 26, 27 and 28.

5 31. Use of a vegetable oil/alcohol vehicle and an essential oil as claimed in claim 22 in the manufacture of a medicament for the treatment of an animal having a parasitic insect infestation.

10 Sub A9 32. A method of treating an animal having a parasitic insect infestation comprising applying to said animal a composition as claimed in any of claims 22 to 28.

15 33. A composition for use as claimed in any one of claims 1 to 17 and 20 to 28 wherein said parasitic insects are selected from lice, lice eggs, mites, fleas or parasites associated with blowfly strike.

20 34. A composition as claimed in claim 33 wherein said parasitic insects are selected from head lice (*Pediculus humanus capitis*, syn. *P. capitis*), clothing lice (*Pediculus humanus humanus* syn. *P. corporis*), pubic lice (*Pthirus pubis*), biting lice (*Bovicula ovis*), scab mite (*Psoroptes ovis*), ear mite (*Psoroptes cuniculi*), dust mites (primarily of the genus *Dermatophagooides*, pig mites, cat fleas (*Ctenocephalalides felis*), dog fleas (*C. canis*), horse fleas and *Lucilia* or *Chrysomya* species.

30 Sub A10 35. A method suitable for treating furnishing or clothing to kill parasitic insects which comprises exposing said furnishings to a composition of the type defined in any one of claims 20, 21, 24, 25, 26, 27

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and 29.

36. A method suitable for treating plants to kill parasitic insects which comprises applying to 5 said plants a composition of the type defined in any one of claims 20, 21, 24, 25, 26, 27 and 29.

37. A method as claimed in claim 36 wherein said parasitic insects are selected from the genera *Aphis*, 10 *Chilo*, *Dysderus*, *Megoura*, *Musca*, *Pieris*, *Nilaparvata*, *Nephrotettix*, *Tetranychus*, *Trialeurodes*, *Thysanoptera* or *Lepidoptera*.

38. A composition comprising an essential oil in 15 a gel carrier, said essential oil being obtained from a plant selected from the genera *Petergonium*, *Cymbopogan*, *Pimpinella*, *Myrtus* (*cretian*, *Morrocian*, *organe*), *Lavandula*, *Pinus*, *Melaleuca*, *Cinnamomum*, *Apium*, *Thymus*, *Hyssopus*, *Rosmellus*, *Cananga*, *Mentle*, 20 *Eucalyptus* or *Vitex*.

sub A II 39. A composition as claimed in claim 38 wherein said gel is as defined in any one of claims 5 to 7.

25 40. A composition comprising the alkaloid galanthamine for use in the treatment of a human or animal having a parasitic insect infestation.

30 41. A composition for use as claimed in claim 40 wherein said composition comprises an extract of a plant of the genus *Narcissus*.

42. A composition for use as claimed in claim 40 or 41 wherein said galanthamine or extract is

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dissolved in an oil-based medium, a water/alcohol based medium or is formulated as a hair conditioner or shampoo or as a gel, dip or pour on treatment.

5 Sub 43. A composition as claimed in claim 42 wherein
012 said gel is as defined in any one of claims 5 to 7.

10 44. A composition as claimed in claim 42 wherein
said galanthamine or extract is carried in a vehicle
comprising from about 0.1 to about 20% alcohol (v/v).

15 45. A composition as claimed in claim 44 wherein
said vehicle comprises about 20% v/v isopropyl
alcohol.

20 46. Use of galanthamine or an extract of
Narcissus in the manufacture of a composition for
treating a human or animal suffering from a parasitic
insect infestation.

25 47. A method of treating a human or animal
suffering from a parasitic insect infestation which
comprises applying to said human or animal a
composition as claimed in any one of claims 40 to 45.

30 Sub 48. A composition for use as claimed in any one
013 of claims 40 to 45 wherein said parasitic insects are
selected from lice, lice eggs, mites, fleas or
parasites associated with blowfly strike.

49. A composition for use as claimed in claim 48
wherein said parasitic insects are selected from head
lice (*Pediculus humanus capitis*, syn. *P. capitis*),
clothing lice (*Pediculus humanus humanus*, syn. *P.*

corporis), pubic lice (*Pthirus pubis*), biting lice (*Bovicula ovis*), scab mite (*Psoroptes ovis*), ear mite (*Psoroptes cuniculi*), dust mites (primarily of the genus *Dermatophagooides*), pig mites, cat fleas (5. *Ctenocephalalides felis*), dog fleas (*C. canis*), horse fleas and *Lucilia* or *Chrysomya* species.

50. A method suitable for treating furnishing or clothing to kill parasitic insects which comprises 10 exposing said furnishings or clothing to a composition of the type defined in any one of claims 40 to 45, 48 and 49.

Sub 014 51. A method suitable for treating plants to 15 kill parasitic insects which comprises applying to said plants a composition of the type defined in any one of claims 40 to 45, 48 and 49.

52. A method as claimed in claim 36 to 42 20 wherein said parasitic insects are selected from the genera *Aphis*, *Chilo*, *Dysdercus*, *Megoura*, *Musca*, *Pieris*, *Nilaparvata*, *Nephrotettix*, *Tetranychus*, *Trialeurodes*, *Thysanoptera* and *Lepidoptera*.

53. A composition comprising a gel carrier and 25 one of, or a combination of two or more of, the terpenes and terpenoids shown to have insecticidal activity according to the data of Figures 7 to 10 for use in treating humans, animals, clothing and 30 furnishings and plants having a parasitic insect infestation.

54. A composition as claimed in claim 53 wherein said terpene or terpenoid is selected from one or more

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of sabinene, p-cymene, β -pinene, myrcene, limonine and terpinen-4-ol.

55. A composition as claimed in claim 53 which
5 comprises a combination of sabinene with limonene
and/or terpinen-4-ol.

56. A composition comprising one of the terpenes
and terpenoids shown to have insecticidal activity
10 according to the data shown in Figures 7 to 10 at a
concentration of about 4% by weight or above for use
in treating humans, animals, clothing and furnishings
and plants having a parasitic insect infestation.

15 57. The composition of claim 56 modified to
include one or more further terpene or terpenoid
compounds from the list shown in Figures 7 to 10.

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